



February 19, 2019

Mike Boerner Chair Life Actuarial (A) Task Force

Reggie Mazyck Life Actuary National Association of Insurance Commissioners

RE: Life Mortality Improvement Subgroup's Response to LATF Questions on the Mortality Improvement Scale Recommendation for AG38 and VM-20

Dear Messieurs Boerner and Mazyck:

We are addressing this to you on behalf of the American Academy of Actuaries'¹⁾ (Academy) Life Experience Committee and Society of Actuaries'²⁾ (SOA) Life Mortality Improvement Subgroup (LMIG). At the NAIC Fall 2018 National Meeting, Dale Hall, representing the LMIG, provided an overview to the Life Actuarial Task Force (LATF) of the current process used to develop the AG38 and VM-20 annual mortality improvement scale recommendations. This process was developed jointly by the Academy's Life Experience Committee and the SOA's Preferred Mortality Project Oversight Group's LMIG. The process has been in place since 2013 and incorporates an annual review of new data sources regarding general population and insured (if available) mortality. Any new potential trends are identified and monitored. Changes to the scale recommendation from year to year are then applied based on materiality of trend shifts.

This document outlines the questions raised by LATF during and following the presentation and provides documented responses.

1) The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

2) The Society of Actuaries (SOA) is an educational, research and professional organization dedicated to serving the public, its members and its candidates. The SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal problems. The SOA's vision is for actuaries to be the leading professionals in the measurement and management of risk.





1. LATF asked whether the forward component of the process, the Social Security Administration's (SSA) future estimation, had any potential bias in it. Is it intended to be conservative, aggressive, or just a best estimate from SSA? Should LATF be worried about the SSA estimation being set with some underlying intention by SSA?

Response—The Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance trust funds (Trustees) develop three sets of projected mortality assumptions for estimating the financial condition of the Social Security program: a more pessimistic (or high-cost), a more optimistic (or low-cost), and a best estimate (or intermediate) set of assumptions. The current process uses the best estimate (or intermediate) version. "The Trustees reexamine the assumptions each year in light of recent experience and new information. This annual review helps to ensure that the Trustees' assumptions provide the best estimate of future possibilities." ³⁾ The LMIG does not have further insight into the SSA rates beyond what is documented within the Trustees report. Having a more pessimistic mortality improvement—meaning slower improvement rather than faster—would act to make their projections more conservative from the perspective of life insurance, which is helped by greater improvement. This is a fair point of consideration for pension and individual annuity scales.

2. Several questions/comments surrounded the recent lower trends in mortality improvement. What happens if these trends continue? What if there is 10 years in a row of low / negative improvement experience? Is there a concern that the method doesn't work well in that scenario?

Response—The method is a combination of science and actuarial judgment. If a trend continues for several years, we make a change as soon as the difference is material (that is the judgment part—when to make a change and when the effect is material). For example, the LMIG made a change in 2017 because it had observed a trend emerging over three years and it was clear that the difference was material, warranting lowering the mortality improvements at certain ages.

3. To become more comfortable with the methodology, LATF requested the LMIG provide more detail on the actual calculations, showing how the calculations work, including the forward look from SSA and the smoothing.

Response—The LMIG has created documentation and is working on a simple spreadsheet to include on the website with the recommendation that shows the application of the methodology and smoothing used in developing the scale, as well as how the factors should be applied by companies using the scale.

3) The 2018 Annual Report of the Board of Trustees, Federal OASDI Trust Funds, June 2018.





4. LATF noted there are noticeable differences by age on the "unsmoothed" and questioned whether the smoothed rates should be constant between ages 20 and 80 or incorporate some of the ups and downs.

Response—This is something the LMIG will consider for the 2019 review in addition to possibly having more age range breaks. Given that the current methodology is a simplified approach, the LMIG has, in the past, favored simplicity and consistency. The LMIG's long-term plan is to follow the work of the SOA's Mortality and Longevity Research Program Steering Committee that has undertaken a project to recommend a common framework for developing mortality improvement scales. The LMIG plans to use that work to guide our decision on changes to the current methodology.

We would be happy to arrange a call to review these observations with the LMIG and Life Experience Committee members and to address any other questions regarding the methodology and application with LATF members.

Sincerely,

Marsine Pauslothe

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